**Renewable Energy Sources**

**The Situation:**

The year is 2040 and Americans are in trouble. The world’s supply of fossil fuels is being rapidly depleted. As a result, drivers are paying $20 per gallon for gasoline, and the cost of heating & cooling homes, businesses, and schools has forced many public buildings to close because of their inability to pay for energy. Families & industry are suffering as well. Goods can’t be transported across the country, and many people must endure extreme heat & cold because energy costs are so high. Add to this the ill health of the Earth’s environment, ravaged for years by greenhouse gases & the effects of global warming. The situation is critical. Alternative energy sources must be developed so that Americans can have reliable, efficient, environmentally friendly ways to run their cars, power their manufacturing plants, and heat and cool their businesses, schools, and homes.

You and your partner(s) are scientists who have been instructed to find ways to solve the energy crisis being faced by the U.S. You will be assigned a specific task related to solving this nationwide crisis. It will be up to you and your partner(s) to research, design, and teach others about an alternative form of energy that can be used to safely meet the energy demands of the population without an extremely high price or further damage to the environment.

***The following ideas should be included in your presentation:***

* How does this technology work?
* How could this energy source be used?
* What are some examples of its current use?
* What are apparent environmental impacts associated with this?
* Are there hidden environmental and social costs?
* Is this technology widely accepted today? Why or why not?
* Do the costs of this technology make it prohibitive for common use? Why or why not?

***Renewable Energy Sources:***

* Solar Energy
* Wind Power
* Water (Hydroelectric) Power
* Hydrogen and Fuel Cells
* Biomass
* Geothermal Energy